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PATENT APPLICATION
10/717,363

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Robert Fischer et al.
Serial No.: 10/717,363
Date Filed: November 19, 2003
Examiner: Safaipour, Bobbak
Group Art Unit: 2618
Confirmation No.: 7747
Title: **RECEIVER AND METHOD FOR
SCANNING AND RECEIVING WAKE-UP
SIGNALS WITH MULTIPLE
CONFIGURATIONS [As Amended]**

MAIL STOP – APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

Further to the notice of appeal submitted on December 14, 2007, Appellant hereby submits this appeal brief according to §41.37.

APPELLANT'S BRIEF (37 C.F.R. § 41.37)

This brief is submitted in support of Appellant's notice of appeal from the decision dated November 15, 2007, of the Examiner finally rejecting claims 1-14 of the subject application.

I. REAL PARTY IN INTEREST

This application is currently owned by Siemens Aktiengesellschaft, as indicated by an assignment recorded on February 24, 2004, in the Assignment Records of the United States Patent and Trademark Office at Reel 015011, Frame 0622.

II. RELATED APPEALS AND INTERFERENCES

There are no known appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision regarding this appeal.

III. STATUS OF CLAIMS

Claims 1-14 are pending in this application and all stand rejected under a Final Office Action mailed September 26, 2007 and Advisory Action mailed November 15, 2007. No claims have been allowed, withdrawn or cancelled. Appellant's presents Claims 1-14 for appeal. Appendix A shows all pending claims.

IV. STATUS OF AMENDMENTS

No amendments have been filed subsequent to the final rejection.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent Claim 1 recites a method for receiving first signals and further signals using a receiver. *See*, for example, specification, page 1, paragraphs [0003]-[0006], page 4, paragraph [0023]. The first and further signals differing in at least one of the transmission parameters: data rate, modulation type, wake-up criterion, synchronization

and threshold. *See*, for example, specification, page 1, paragraphs [0003]-[0006], and page 4, paragraphs [0023]-[0024]. The method comprises the steps of:

- a) in a first step in a quiescent mode (1) of the receiver, performing receiving and searching for a first wake-up criterion (7) intermittently using a first preset adjustable configuration (A) of transmission parameters (3) tuned for receiving the first wake-up criterion with a first data rate and/or a first modulation type and/or a first threshold. *See*, for example, specification, page 4, paragraphs [0024]-[0026].
- b) when the first wake-up criterion is not received or found in said quiescent mode (1), switching (9) the receiver to at least one further configuration (B) different from said first preset adjustable configuration (A) and tuned for receiving a second wake-up criterion and searching for the second wake-up criterion (13). *See*, for example, specification, page 5, paragraph [0027]-[0029].
- c) if said first or second wake-up criterion has been received in step a) or b), switching the receiver into an active mode (15) with a respectively selected configuration (A, B). *See*, for example, specification, page 4, paragraph [0026] and page 5, paragraph [0029].

Independent Claim 6 recites a receiver for receiving first signals and further signals comprising a storage device for loading at least two different pre-definable receive configurations (A, B). *See*, for example, specification, page 1, paragraphs [0003]-[0006], page 4, paragraph [0023]. The receiver has a quiescent mode (1) in which it intermittently is turned on to receive and search for a first wake-up criterion (7) using a first preset adjustable configuration of transmission parameters (A). *See*, for example, specification, page 4, paragraphs [0024]-[0026]. The receiver comprises a changeover switch (9) in order to switch to at least one further second configuration (B) different from said first configuration (A) when the first wake-up criterion is not found, and to search for a second wake-up criterion. *See*, for example, specification, page 5, paragraph [0027]-[0029]. The receiver is operable to switch into an active mode (15) with said first or second configuration (A, B), respectively in case of a successful reception of said first

or second wake-up criterion. *See*, for example, specification, page 4, paragraph [0026] and page 5, paragraph [0029].

Independent Claim 10 recites a motor vehicle comprising a receiver for receiving first signals and further signals comprising a storage device for loading at least two different pre-definable receive configurations (A, B). *See*, for example, specification, page 1, paragraphs [0003]-[0006], page 4, paragraph [0023]. The receiver further comprises a first device coupled with said receiver. *See*, for example, specification, page 4, paragraph [0023] (the first device may be a remote keyless entry device RKE). The receiver further comprises a second device coupled with said receiver. *See*, for example, specification, page 4, paragraph [0023] (the first device may be a Tire Guard device). The receiver is operable to operate in a quiescent mode (1) in which it intermittently is turned on to receive and search for a first wake-up criterion (7) using a first preset adjustable configuration of transmission parameters (A). *See*, for example, specification, page 4, paragraphs [0024]-[0026]. The receiver comprises a changeover switch (9) in order to switch to at least a second preset adjustable configuration (B) different from said first preset adjustable configuration (A) when no signal is received and the first wake-up criterion is not found using said first preset adjustable configuration (A), and to search for a second wake-up criterion (13). *See*, for example, specification, page 5, paragraph [0027]-[0029]. The receiver is operable to switch into an active mode (15) with said first or second preset adjustable configuration (A, B), respectively in case of a successful reception of said first or second wake-up criterion.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-4, 6-7, 9-11, and 13 stand rejected by the Examiner under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication 2002/0177406 filed by Steve O'Conner et al. ("O'Conner").

Claims 5, 8, and 12 were rejected under 35 U.S.C. §103(a) as being unpatentable over O'Conner in view of U.S. Patent 4,633,515 issued to Harry B. Uber et al. ("Uber").

VII. ARGUMENT

Independent Claim 1

The present claims are directed to a method and apparatus for switching a receiver from a quiescent mode into an active mode with a selected configuration. According to independent Claim 1, the receiver is activated intermittently to receive and search for a first wake-up criterion using a first preset adjustable configuration. If the receiver does not receive or find the first wake-up criterion, then the receiver is switched to a second configuration and tries to find a second wake-up criterion. However, if either the first or second wake-up criterion is found, the receiver is switched from the quiescent mode into an active mode. Hence, the system is either in a quiescent mode searching for a wake-up signal or in one of two active modes after one the two wake-up signals has been received.

O'Conner discloses a different system that does not read on the present set of claims. First, O'Connor is not intermittently activating a receiver. Rather O'Connor teaches to switch from a first mode into a second mode by means of a single wake-up signal which can be received when in the first mode. According to O'Connor, the system defaults to operate in a first mode (ASK). *See, O'Connor, page 3, paragraph [0039].* It remains in this ASK mode as long as no trigger signal is received. *See, O'Connor, page 3, paragraph [0039].* To be able to switch from the ASK mode into the FSK mode, the FSK transmitter must be able to send an ASK wakeup preamble. *See, O'Connor, page 3, paragraph [0033], lines 5-8.* Only if the system receives an ASK wake-up signal or another trigger signal, then the system switches to the FSK mode. Thus, the tire monitors which generally operate in the FSK mode, are required to include a transmitter that also includes an ASK wake-up pattern preceding the FSK signal to switch the system from the ASK mode to the FSK mode. *See, O'Connor, page 3, paragraph [0033], lines 8-10.* In other words, the system always operates in the ASK mode and requires a specific ASK wake-up pattern to switch into the FSK mode. Form the FSK mode it again defaults into the ASK mode.

According to independent Claim 1, when the receiver is in a low power mode (quiescent mode), the receiver is intermittently switched from mode A to mode B. In each mode, the receiver watches for a respective wake-up signal. Thus, if the receiver is in mode A, a B-mode wake up signal will not turn the system on. However, a B-mode wake-up signal

when received while the receiver is in B-mode will switch the receiver into active mode. In this active mode, the receiver will remain in its respective configuration. Hence, contrary to *O'Connor*, a trigger signal such as the ASK wake-up signal will not switch the configuration.

The receiver is, thus, switched from a quiescent mode into either an active mode with a first configuration or with a second configuration. To this end, Claim 1 includes the limitation "c) if said first or second wake-up criterion has been received in step a) or b), switching the receiver into an active mode with a respectively selected configuration."

O'Connor merely discloses the switching from one configuration into a second configuration using a wake-up or trigger signal. Thus, a current configuration is switched to another configuration due to the wake-up or trigger signal. *See, O'Connor*, page 3, paragraph [0039]. The present application does not claim such a mechanism.

The Examiner stated that O'Connor discloses that the ASK mode is a low power mode and, hence, the Examiner compares this ASK mode to the quiescent mode. However, even if the ASK mode is considered as the quiescent mode, which Applicant does not concede, O'Connor does not teach to switch from this ASK mode into an active mode with either a first or a second configuration as required by Claim 1. Hence, O'Connor does not anticipate Claim 1.

Independent Claims 6 and 10

According to independent Claims 6 and 10, the receiver has a quiescent mode in which it intermittently is turned on to receive and search for a first wake-up criterion using a first preset adjustable configuration of transmission parameters. Thus, the receiver is switched intermittently into an active mode to receive and search for a first wake-up criterion in a first configuration. Only if such a first wake-up criterion is not found, then the configuration is switched to a second one. Similarly as in Claim 1, Claims 6 and 10 include the limitation of switching from the quiescent mode into the active mode with either the first or second configuration upon successful reception of the first or second wake-up criterion.

O'Conner discloses a system which in the default mode is in the ASK mode. *See, O'Connor*, page 3, paragraph [0039]. When in this mode, the receiver is always on to be able

to receive the wake-up or trigger signal. Hence, O'Connor does not disclose a quiescent mode in which the receiver is most of time inoperable and only for short period of times activated. *O'Connor* at best discloses two different operating modes, namely the ASK or default mode from which the system can be switched into an FSK mode when a respective wake-up signal or trigger signal is received and from which mode the system defaults back to the ASK mode. *See, O'Connor*, page 3, paragraph [0033] and [0039]. According to *O'Connor* the tire monitors which operate in the FSK mode must send a wake-up signal to the receiver to switch the receiver into FSK mode. To this end, the trigger signal must include an ASK preamble which the ASK receiver receives and causes the receiver to switch into the FSK mode. Hence, the wake-up or trigger signal switches the configuration whereas according to the independent claims no configuration switch takes place when a wake-up signal is successfully received and decoded because the system according to the independent claims 6 and 10 must already be in the correct configuration to be able to receive the respective wake-up signal. Thus, *O'Connor* cannot anticipate the present independent Claims 6 and 10.

Dependent Claims

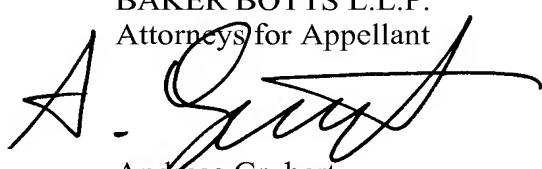
Applicants respectfully submit that the dependent Claims are allowable at least to the extent of the independent Claims 1, 6, or 10 to which they refer, respectively. Thus, Applicants respectfully request reconsideration and allowance of the dependent Claims.

SUMMARY

Appellant authorizes the Commissioner to charge \$510.00 for the Appeal Brief to Deposit Account No. 50-2148 of Baker Botts L.L.P. Appellant believes there are no additional fees due at this time, however, the Commissioner is hereby authorized to charge any fees necessary or credit any overpayment to Deposit Account No. 50-2148 of Baker Botts L.L.P.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Appellant's attorney at 512.322.2545.

Respectfully submitted,

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APPENDIX A - CLAIMS INVOLVED IN APPEAL

1. (Previously Presented) A method for receiving first signals and further signals using a receiver,

the first and further signals differing in at least one of the transmission parameters: data rate, modulation type, wake-up criterion, synchronization and threshold, comprising the steps of:

- a) in a first step in a quiescent mode of the receiver, performing receiving and searching for a first wake-up criterion intermittently using a first preset adjustable configuration of transmission parameters tuned for receiving the first wake-up criterion with a first data rate and/or a first modulation type and/or a first threshold; and
- b) when the first wake-up criterion is not received or found in said quiescent mode, switching the receiver to at least one further configuration different from said first preset adjustable configuration and tuned for receiving a second wake-up criterion and searching for the second wake-up criterion, and
- c) if said first or second wake-up criterion has been received in step a) or b), switching the receiver into an active mode with a respectively selected configuration.

2. (Original) The method as claimed in claim 1, wherein when no signal is received and no wake-up criterion is found using at least one further configuration, the process starts again with step a).

3. (Previously Presented) The method as claimed in claim 1, wherein **a** first device is a remote keyless entry system and **a** second device is a tire pressure monitoring system.

4. (Previously Presented) The method as claimed in claim 1, wherein on receiving successfully and finding a wake-up criterion by step a) or b), the receiver goes out of the quiescent mode into an active mode using the configuration that was successful for the reception concerned.
5. (Previously Presented) The method as claimed in claim 1, wherein the successful reception of a wake-up criterion by step a) or b) must take place within a preset time.

6. (Previously Presented) A receiver for receiving first signals and further signals comprising a storage device for loading at least two different pre-definable receive configurations, wherein

the receiver has a quiescent mode in which it intermittently is turned on to receive and search for a first wake-up criterion using a first preset adjustable configuration of transmission parameters, and

the receiver comprises a changeover switch in order to switch to at least one further second configuration different from said first configuration when the first wake-up criterion is not found, and to search for a second wake-up criterion,

wherein the receiver is operable to switch into an active mode with said first or second configuration, respectively in case of a successful reception of said first or second wake-up criterion.

7. (Previously Presented) The receiver as claimed in claim 6, wherein the receiver has an active mode that the receiver goes into when reception is successful and a wake-up criterion has been found using the configuration that was successful for the reception concerned.

8. (Previously Presented) The receiver as claimed in claim 6, wherein the receiver has a time-control unit so that the switchover using the changeover switch occurs within a preset time at the latest.

9. (Previously Presented) The receiver as claimed in claim 6, wherein a first device is a remote keyless entry system and a second device is a tire pressure monitoring system.

10. (Previously Presented) A motor vehicle comprising:

- a receiver for receiving first signals and further signals comprising a storage device for loading at least two different pre-definable receive configurations,
- a first device coupled with said receiver;
- a second device coupled with said receiver;
- wherein the receiver is operable to operate in a quiescent mode in which it intermittently is turned on to receive and search for a first wake-up criterion using a first preset adjustable configuration of transmission parameters, and
- wherein the receiver comprises a changeover switch in order to switch to at least a second preset adjustable configuration different from said first preset adjustable configuration when no signal is received and the first wake-up criterion is not found using said first preset adjustable configuration, and to search for a second wake-up criterion, wherein the receiver is operable to switch into an active mode with said first or second preset adjustable configuration, respectively in case of a successful reception of said first or second wake-up criterion.

11. (Previously Presented) The motor vehicle as claimed in claim 10, wherein the receiver has an active mode that the receiver goes into when reception is successful and a wake-up criterion has been found using the configuration that was successful for the reception concerned.

12. (Previously Presented) The motor vehicle as claimed in claim 10, wherein the receiver has a time-control unit so that the switchover using the changeover switch occurs within a preset time at the latest.

13. (Previously Presented) The motor vehicle as claimed in claim 10, wherein said first device is a remote keyless entry system and said second device is a tire pressure monitoring system.

14. (Previously Presented) The method as claimed in claim 1, wherein during quiescent mode, the receiver is turned on in intervals for receiving said first or second wake-up criterion.

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APPENDIX B - EVIDENCE

NONE

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APPENDIX C: RELATED PROCEEDINGS

NONE